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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/751,138 | 12/29/2000 | Markku Verkama | 796.379USW1 | 9196 |
| 32294 | 7590 | 08/27/2004 | EXAMINER | |
| SQUIRE, SANDERS & DEMPSEY L.L.P. 14TH FLOOR 8000 TOWERS CRESCENT TYSONS CORNER, VA 22182 | | | BACKER, FIRMIN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3621 | |

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|-----------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/751,138 | VERKAMA, MARKKU GT |
| Examiner | Art Unit | |
| Firmin Backer | 3621 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03 June 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

Response to Amendment

This is in response to an amendment file on June 3rd, 2004. In the amendment, claims 1-13 have been amended, no claim has been canceled, and claims 14-21 have been added. Claims 1-22 are pending in the letter.

Response to Argument

1. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murto (U.S. Patent No. 5,991,407) in view of Brown et al (U.S. Patent No. 5,689,563).

4. As per claim 1 and 10, Murto teaches authentication method for a telecommunications network, especially for an IP network, the method transmitting from a terminal (TE1) to the network an authenticator and a data unit (SPI) containing information relating to the manner in

which the authenticator is formed, and in the network, determining a check value by means of the data unit, the check value being compared with the said authenticator, characterized by using such an identification unit in the terminal of the network which receives a challenge as input from which it is possible to determine a response and a key essentially in the same way as in the subscriber identification module of a known mobile communications system, generating a set of subscriber-specific authentication data blocks into the network, each data block, containing a challenge, a response and a key, whereby the generation is performed in the same manner as in the said mobile communications system, (*see figs 6, column 2 lines 9-39, column 3 lines 2-58, 5 lines 10-6 lines 57*). Murto fail to teach an inventive concept of transmitting at least some of the challenges contained in the authentication data blocks to the terminal, choosing one of the challenges for use in the terminal, and based on this challenge, determining a response and a key to be used with the aid of the subscriber identity module of the terminal, notifying the network with the aid of the said data unit of which key corresponding to which challenge was chosen, and determining the authenticator and the said check value with the aid of the chosen key. However, Brown et al teach transmitting at least some of the challenges contained in the authentication data blocks to the terminal, choosing one of the challenges for use in the terminal, and based on this challenge, determining a response and a key to be used with the aid of the subscriber identity module of the terminal, notifying the network with the aid of the said data unit of which key corresponding to which challenge was chosen, and determining the authenticator and the said check value with the aid of the chosen key (*see column 3 lines 1-4 line57, 6 lines 13-67*). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the inventive concept of Murto to include Brown et al concept because this would have provide more secure manner to identify a user accessing the system.

5. As per claim 2, Murto teaches that the data unit is the SPI (Security Parameter Index) in the registration message of the Mobile IP protocol (*see figs 6, column 2 lines 9-39, column 3 lines 2-58, 5 lines 10-6 lines 57*).

6. As per claim 3, Murto teaches that the value of the response determined at the terminal is inserted into the data unit (*see figs 6, column 2 lines 9-39, column 3 lines 2-58, 5 lines 10-6 lines 57*).

7. As per claim 4, Murto teaches that the challenges are sorted in an order at the terminal with the aid of predetermined sorting criteria and a consecutive number corresponding to the chosen challenge is inserted into the data unit (*see figs 6, column 2 lines 9-39, column 3 lines 2-58, 5 lines 10-6 lines 57*).

8. As per claim 5, Murto teaches that the identification unit used in the terminal is the subscriber identity module SIM used by the known GSM system and the said authentication data blocks are authentication triplets used by the GSM system (*see figs 6, column 2 lines 9-39, column 3 lines 2-58, 5 lines 10-6 lines 57*).

9. As per claim 6 and 12 Murto teaches that the authentication triplets are fetched from the authentication centre AuC of the GSM system (*see figs 6, column 2 lines 9-39, column 3 lines 2-58, 5 lines 10-6 lines 57*).

10. As per claim 7 and 13 Murto teaches that the challenges to be transmitted to the terminal are transmitted by using a known short message switching service (*see figs 6, column 2 lines 9-39, column 3 lines 2-58, 5 lines 10-6 lines 57*).

11. As per claim 8, Murto teaches that the challenges to be transmitted to the terminal are transmitted in an IP datagram to be sent through an IP network (*see figs 6, column 2 lines 9-39, column 3 lines 2-58, 5 lines 10-6 lines 57*).

12. As per claim 9, Murto teaches that the authentication data blocks are transmitted to the home agent of the terminal and with the aid of the said data unit a message is given to the home agent about which key corresponding to which challenge was chosen, whereby the said check value is determined in the home agent (*see figs 6, column 2 lines 9-39, column 3 lines 2-58, 5 lines 10-6 lines 57*).

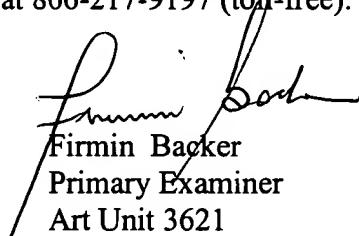
13. As per claims 14-21, the recited subject matter is similar to claims 1-13 as indicated by the applicant. Therefore, they are rejected under the same rationale.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Firmin Backer whose telephone number is (703) 305-0624. The examiner can normally be reached on Mon-Thu 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on (703) 305-9768. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Firmin Backer
Primary Examiner
Art Unit 3621

August 25, 2004